What is claimed is:

1. A cutting tool provided with a tool base composed with tungsten carbide-based cemented carbide or titanium carbonitride-based Cermet, and a hard coating layer provided on the surface of the tool base; wherein the hard coating layer comprises:

(a) at least one of a Ti compound and a Zr compound layer, which is a lower layer, comprising at least one layer of a Ti carbide layer, Ti nitride layer, Ti carbonitride layer, Ti oxicarbide layer, Ti oxicarbonitride layer, Zr carbide layer, Zr nitride layer, Zr carbonitride layer, Zr oxicarbide layer and Zr oxicarbonitride layer formed by chemical vapor deposition, and having an overall mean layer thickness of 0.5-20 μm, and

(b) an aluminum oxide layer having an α crystal structure in the state of being formed by chemical vapor deposition, which is an upper layer, comprising the highest peak in the inclination section within a range of 0-10 degrees in the case of emitting an electron beam onto individual crystal grains having a hexagonal crystal lattice present within the measuring range of the surface polishing plane, measuring the inclination of the (0001) crystal plane of the crystal grains relative to the normal of the surface polishing plane using a field emission scanning electron microscope, dividing the measured inclinations within a range of 0-45 degrees indicated by the individual crystal grains for each pitch of 0.25 degrees, and preparing a pole plot graph by tabulating the measured inclinations present in each section for each section, and having the mean layer thickness is 1-30 μm.

2. A cutting tool according to claim 1, wherein the hard coating layer has an aluminum oxide core thin layer containing an aluminum oxide core between the lower layer and the upper layer.

3. A cutting tool according to claim 1, wherein the mean layer thickness of the

aluminum oxide core thin layer is 20-200 nm.

4. A method for forming the hard coating layer for a cutting tool according to claim 2, comprising:

forming at least one of the Ti compound and the Zr compound layer;

forming the aluminum oxide core thin layer on the surface of the at least one of Ti compound and the Zr compound layer under conditions of a reaction gas composition, in % by volume, of $AlCl_3$: 3-10%, CO_2: 0.5-3%, C_2H_4: 0.01-0.3% and H_2: remainder, a reaction atmosphere temperature of 750-900°C and a reaction atmosphere pressure of 3-13 kPa; and

heating the aluminum oxide core thin layer to 1100-1200°C under conditions in which the reaction atmosphere is hydrogen and the reaction pressure is 3-13 kPa; and

forming the aluminum oxide layer having an α crystal structure on the heated aluminum oxide core thin layer.